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10/800,217	03/12/2004	Joel Jeffrey	11864-002004	8570

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FISH & RICHARDSON P.C.
PO BOX 1022
MINNEAPOLIS, MN 55440-1022

EXAMINER	
ALI, MOHAMMAD	
ART UNIT	**PAPER NUMBER**
2166	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/800,217	JEFFREY, JOEL	
	Examiner	Art Unit	
	Mohammad Ali	2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 February 2007* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 10-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *9/30/04* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

1. Claim 19 is withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Group II, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 2/15/07.

Double Patenting

1. 35 U.S.C. § 101 reads as follows:

> "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title".

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-18 are rejected under the judicially created doctrine of

obviousness-type double patenting as being unpatentable over claims 1-9 and 12-20 of USP, 6,708,165 issued to Joel Jeffrey ('Jeffrey'). Although the conflicting claims are not identical, they are not patentably distinct from each other because they are substantially similar in scope and they use the same limitations.

Claims 1, and 12 of the USP, 6,708,165 reference recites all the elements of claims 1 and 10 of the instant application. Claims 1, and 12 of the 6,708,165 reference also includes additional elements that are not recited in the instant claims. e.g., "the information submatrices forming a disjoint set in which no two information submatrices have any row or any column of the segmented judgment matrix in common, and each element of the segmented judgment matrix not contained in one of the information submatrices having a rating indicating an absence of relevance of the corresponding term to the corresponding subject matter classification".

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to omit the additional elements "the information submatrices forming a disjoint set in which no two information submatrices have any row or any column of the segmented judgment matrix in common, and each element of the segmented judgment matrix not contained in one of the information submatrices having a rating indicating an absence of relevance of the corresponding term to the corresponding subject matter classification" of claims 1 and 12 to arrive at the claims 1and 10 of the instant application because the person would have realized that the remaining element would perform the same functions as before. "Omission of element and its function in combination is obvious expedient if the remaining elements perform

same functions as before." See In re Karlson (CCPA) 136 USPQ 184, decide Jan 16, 1963, Appl. No. 6857, U. S. Court of Customs and Patent Appeals.

3. Claims 1-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-28 of US Patent USP, 6,493,711 issued to Joel Jeffrey ('Jeffrey'). Although the conflicting claims are not identical, they are not patentably distinct from each other because they are substantially similar in scope and they use the same limitations.

Claims 1, 13, 25, and 26-28 of the USP, 6,493,711 reference recites all the elements of claims 1 and 10 of the instant application. Claims 1, 13, 25, and 26-28 of the 6,493,711 B1 reference also includes additional elements that are not recited in the instant claims.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to omit the additional elements of claims 1, 13, 25, and 26-28 arrive at the claims 1and 10 of the instant application because the person would have realized that the remaining element would perform the same functions as before. "Omission of element and its function in combination is obvious expedient if the remaining elements perform same functions as before." See In re Karlson (CCPA) 136 USPQ 184, decide Jan 16, 1963, Appl. No. 6857, U. S. Court of Customs and Patent Appeals.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-3, 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hilsenrath et al., ('Hilsenrath' hereinafter), US Pat 5,926,812 in view of James D. Johannes ('Johannes' hereinafter), "Automatic thyroid diagnostics via simulation of physician judgement".

As co claim 1, Hilsenrath disclosed a method for processing information (col. 2, 10-25). Hilsenrath teaches 'receiving a segmented matrix, the segmented matrix being a numerical matrix pairing each of a set of terms to each of a set of classifications' as clusters are collected (receive) into three groups (classification) and clusters in each group are then combined to a form a set with three clusters. Any two clusters may be combined by taking the union of their cluster word lists and merging their matrices. Corresponding matrices from the same two clusters are merged. Since the clusters have three words in common, their respective matrices are divided into sub-matirces (col. 5, lines 67 to col. 6, lines 38, Figs. 15-16 et seq). Hilsenrath teaches 'each term being a word or phrase, the segmented matrix having a plurality of information submatrices, each element of each information submatrix representing a rating of a relevance of the term of the element to the classification of the element, each information submatrix being a numerical matrix representing the relevance of each of a subset of the set of terms to each of a subset of the set classifications' as the 4X4

matrix for the first cluster is divided into four sub-matrices: a 3X3 matrix 68 corresponding to the three words it shares with the second cluster, a 1X1 matrix 70 corresponding to the one word it does not share with the second cluster, a 1X3 matrix 72, and a 3X1 matrix 74. Similarly, the second cluster's 5X5 matrix is divided up into four sub-matrices: a 3X3 matrix 76 corresponding to the three words it shares with the first cluster, a 2X2 matrix 78 corresponding to the two words it does not share with the first cluster, a 3X2 matrix 80, and a 2X3 matrix 82. The first and second matrices are merged to form a 6X6 matrix, as shown. This 6X6 matrix contains a 3X3 matrix 84 whose entries contain the sum of the corresponding entries for 3X3 matrices 68 and 76. It also contains a 1X1 matrix 86 corresponding to the 1X1 matrix (relevance) 70 from the first cluster, a 2X2 matrix 88 corresponding to the 2X2 matrix 78 from the second cluster, a 3X1 matrix 90 and a 1X3 matrix 92 corresponding to the 3X1 matrix 74 and the 1X3 matrix 72, and a 3X2 matrix 94 and a 2X3 matrix 96 corresponding to the 3X2 matrix 80 and the 2X3 matrix 82 (col. 6, lines 17-36, Fig. 16). Finally, Hilsenrath teaches 'using the segmented matrix to calculate an information spectrum' as the cluster word list is determined by recursively calling a procedure that returns a list of words within a predetermined distance from a given word in the document, and calculating the number of connections matrix by repeatedly calling a procedure that determines the number of connections in the document between words (col. 2, lines 18-24, Fig. 12 et seq). Hilsenrath does not particularly indicate that the matrix used is a judgment matrix. However, Johannes discloses a judgment matrix in a correlated documents at (pages25-29 et seq). It would have been obvious to one ordinary skill in the art of data

processing information, at the time of the present invention was made to combine the teachings of the cited references because the judgment matrix of Joannes's system would allow users of Hilsenrath's system to retrieve relevant documents based on their level of correlation with a requested documents, as explained in Joannes (pages 25-29 et seq).

As to claim 2, Hilsenrath teaches 'at least some of the elements of the information submatrices represent ratings of relevance made by a human being' as (Figs. 12, 16)

As to claim 3, Hilsenrath teaches 'the segmented matrix has rows and columns and each column of the segmented matrix represents a classification and each row of the segmented judgment matrix represents a term' as (Figs. 15-16).

As to claim 10, a computer program product comprising instructions operable to cause data processing (col. 2, 10-25). Hilsenrath teaches 'receive a segmented matrix, the segmented matrix being a numerical matrix pairing each of a set of terms to each of a set of classifications' as clusters are collected (receive) into three groups (classification) and clusters in each group are then combined to a form a set with three clusters. Any two clusters may be combined by taking the union of their cluster word lists and merging their matrices. Corresponding matrices from the same two clusters are merged. Since the clusters have three words in common, their respective matrices are divided into sub-matirces (col. 5, lines 67 to col. 6, lines 38, Figs. 15-16 et seq). Hilsenrath teaches 'each term being a word or phrase, the segmented matrix having a plurality of information submatrices, each element of each information submatrnx

representing a rating of a relevance of the term of the element to the classification of the element, each information submatrix being a numerical matrix representing the relevance of each of a subset of the set of terms to each of a subset of the set classifications' as the 4X4 matrix for the first cluster is divided into four sub-matrices: a 3X3 matrix 68 corresponding to the three words it shares with the second cluster, a 1X1 matrix 70 corresponding to the one word it does not share with the second cluster, a 1X3 matrix 72, and a 3X1 matrix 74. Similarly, the second cluster's 5X5 matrix is divided up into four sub-matrices: a 3X3 matrix 76 corresponding to the three words it shares with the first cluster, a 2X2 matrix 78 corresponding to the two words it does not share with the first cluster, a 3X2 matrix 80, and a 2X3 matrix 82. The first and second matrices are merged to form a 6X6 matrix, as shown. This 6X6 matrix contains a 3X3 matrix 84 whose entries contain the sum of the corresponding entries for 3X3 matrices 68 and 76. It also contains a 1X1 matrix 86 corresponding to the 1X1 matrix (relevance) 70 from the first cluster, a 2X2 matrix 88 corresponding to the 2X2 matrix 78 from the second cluster, a 3X1 matrix 90 and a 1X3 matrix 92 corresponding to the 3X1 matrix 74 and the 1X3 matrix 72, and a 3X2 matrix 94 and a 2X3 matrix 96 corresponding to the 3X2 matrix 80 and the 2X3 matrix 82 (col. 6, lines 17-36, Fig. 16). Finally, Hilsenrath teaches 'using the segmented matrix to calculate an information spectrum' as the cluster word list is determined by recursively calling a procedure that returns a list of words within a predetermined distance from a given word in the document, and calculating the number of connections matrix by repeatedly calling a procedure that determines the number of connections in the document between words (col. 2, lines 18-

24 et seq). Hilsenrath does not particularly indicate that the matrix used is a judgment matrix. However, Johannes discloses a judgment matrix in a correlated documents at (pages25-29 et seq). It would have been obvious to one ordinary skill in the art of data processing information, at the time of the present invention was made to combine the teachings of the cited references because the judgment matrix of Joannes's system would allow users of Hilsenrath's system to retrieve relevant documents based on their level of correlation with a requested documents, as explained in Joannes (pages 25-29 et seq).

As to claim 11, Hilsenrath teaches 'at least some of the elements of the information submatrices represent ratings of relevance made by a human being' as (Figs. 12, 15-16).

As to claim 12, Hilsenrath teaches 'the segmented matrix has rows and columns and each column of the segmented matrix represents a classification and each row of the segmented judgment matrix represents a term' as (Figs. 15-16 et seq).

Allowable Subject Matter

6. Claims 4-9, 13-18 are objected to as being dependent upon a rejected base claims, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Prior art of record does not teach or fairly suggest the elements whereby receiving the search request the segmented matrix to calculate an information spectrum for each of a plurality of documents comprises calculating an information spectrum for each of the plurality of documents based upon at least some of the plurality of terms and selecting the plurality

of terms based upon a relevance of each term of the plurality of terms to at least some of the classifications of the information submatrices.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad Ali whose telephone number is (571) 272-4105. The examiner can normally be reached on Monday-Thursday (7:30 am-6:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mohammad Ali
Primary Examiner
Art Unit 2166

MA
April 28, 2007